

## *Liquidambar styraciflua* / *Sphagnum* spp. Forest

COMMON NAME	Sweetgum / Peatmoss species Forest
SYNONYM	Gum Swamp Upland Pool
PHYSIOGNOMIC CLASS	Forest (I)
PHYSIOGNOMIC SUBCLASS	Deciduous forest (I.B)
PHYSIOGNOMIC GROUP	Cold-deciduous forest (I.B.2)
PHYSIOGNOMIC SUBGROUP	Natural/Semi-natural (I.B.2.N)
FORMATION	Seasonally flooded cold-deciduous forest (I.B.2.N.e)
ALLIANCE	<i>Liquidambar styraciflua</i> - ( <i>Acer rubrum</i> ) Seasonally Flooded Forest Alliance

CLASSIFICATION CONFIDENCE LEVEL 3

USFWS WETLAND SYSTEM Palustrine

### RANGE

#### **Globally**

This community is known from a single location in the Great Smoky Mountains of Tennessee. Similar vegetation may occur in the Piedmont of North Carolina.

#### **Great Smoky Mountains National Park**

This community was sampled from Gum Swamp, along the Cades Cove Loop Road, on the Codes Cove quadrangle.

### ENVIRONMENTAL DESCRIPTION

#### **Globally**

#### **Great Smoky Mountains National Park**

This is a palustrine, seasonally flooded forest in an upland depression. Water is ponded about one meter deep during the wettest part of the year and below the surface in the summer months. The vegetation is heavily browsed by deer.

### MOST ABUNDANT SPECIES

#### **Globally**

No information

#### **Great Smoky Mountains National Park**

<u>Stratum</u>	<u>Species</u>
Tree canopy	<i>Liquidambar styraciflua</i>
Herbaceous	<i>Chasmanthium laxum</i>
Nonvascular	<i>Sphagnum</i> species

### CHARACTERISTIC SPECIES

#### **Globally**

*Liquidambar styraciflua*, *Acer rubrum* var. *trilobum*, *Sphagnum* species

#### **Great Smoky Mountains National Park**

See above

### VEGETATION DESCRIPTION

#### **Globally**

Canopy (15-35 m) strongly dominated by *Liquidambar styraciflua* but with occasional *Acer rubrum* var. *trilobum* and *Nyssa sylvatica*. There is essentially no shrub cover, but *Rhododendron maximum* is present. During the summers, when the pond is dry, groundcover is dominated by leaf litter, and herb cover is restricted to fallen logs and tip-up mounds. Herb density and composition probably vary from year to year. Herb species include *Chasmanthium laxum*, *Dennstaedtia punctilobula*, *Microstegium vimineum*, and *Juncus effusus*. Scattered mosses include *Sphagnum* spp., *Polytrichum commune*, *Atrichum* spp., *Hypnum* spp., and *Thuidium* spp.

***Great Smoky Mountains National Park***

OTHER NOTEWORTHY SPECIES

One of the *Sphagnum* species associated with these forests may be a disjunct Coastal Plain species, *Sphagnum cuspidatum* var. *floridanum* (B. Dellinger pers. comm.).

CONSERVATION RANK                      G1Q

RANK JUSTIFICATION

This community is known from only one location, but the taxonomy of the association is questionable.

DATABASE CODE                              C EGL007388

COMMENTS

***Globally***

This concept is based on one site in Cades Cove (Gum Swamp) at 1750 feet elevation. The area is heavily browsed by deer. A similar site upslope has *Acer rubrum* (var. *trilobum*?) occurring with *Liquidambar styraciflua*. One of the *Sphagnum* species associated with these forests may be a disjunct Coastal Plain species, *Sphagnum cuspidatum* var. *floridanum* (B. Dellinger pers. comm.). Examples may also occur at Uwharrie National Forest and in Duke Forest.

***Great Smoky Mountains National Park***

REFERENCES

Dellinger pers. comm.